

REMARKS

This amendment is responsive to the Office Action mailed May 15, 2008, wherein claims 38-46 are allowed, claims 1-4 and 21 were rejected under 35 USC §102(a) as being anticipated by Ermakov (US 6,448,795), claims 8 and 9 were rejected under 35 USC §112 second paragraph as being indefinite, claim 20 was rejected under 35 USC §103(a) as being unpatentable over Ermakove in view of Eckles (6,029,458), claims 5-7, 10-20, and 22-36 were objected to as being dependent on a rejected base claim but would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 1-36 and 38-46 remain pending in this application. No new matter has been added. Reconsideration in light of the following remarks is respectfully requested.

In this amendment claims 8 and 9 were amended to more clearly and definitively state the Applicants' claimed invention. Applicants believe that claims 8 and 9 are now in condition for allowance. Thus, it is respectfully requested that the rejection of claims 8 and 9 under 35 USC §112 second paragraph for being indefinite be withdrawn.

Claims 1-4 and 21 were rejected 35 USC §102 (e) as being anticipated by Ermakov. Applicants respectfully traverse the rejection. The present invention, as claimed in independent claims 1 and 21 are patentable over Ermakov. "Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates v. Garlock, Inc.*, 220 USPQ 303, 313 (Fed. Cir. 1983). Ermakov does not disclose each and every element of the present invention as claimed in independent claims 1 and 21. Claim 1 discloses a low eddy current cryogen circuit (100) for superconducting magnets comprising at least a first cooling coil (102) comprising an electrically conducting material and at least one electrical isolator (104) incorporated in the first cooling coil. The electrical isolator (104) further is located to inhibit induced eddy current loops in the cryogen circuit due to inductive coupling of the first cooling coil with eddy current inducing field sources.

Ermakov does not teach or disclose each and every element of independent claim 1. Ermakov merely teaches a three coil apparatus for eddy current testing, which comprises coils, an eddy-current induced by a magnetic field, a high conducting sampling surface and a cold sink. The Examiner has also cited that the coils are fabricated with ceramic (column 7, lines 10-13) as the basis for the rejection. Applicants respectfully disagree.

Ermakov suggest the use of ceramic to fabricate the coils. Column 7 lines 9-13 states "...coils can also be fabricated by depositing, patterning and /or growth of conductive material on platforms, said platforms made with insulating materials including, polymeric, ceramic...." However, Ermakov's uses ceramic as a means of producing a conductive coil wherein a conductive layer is formed by

encapsulating a ceramic support structure. This method is used to allow for depositing a uniform solid conductive layered and is typically used for small or complex shapes. Clearly the ceramic structure is used merely as a structural framework for fabrication. There is no evidence that the ceramic structural framework functions as an electrical isolator or is located to inhibit eddy current loops. Ermakov merely teaches ceramics can be used to assist in fabrication of coils. Nowhere does Ermakov teach or disclose an electrical isolator located to inhibit induced eddy current loops in the cryogen circuit

Therefore, Ermakov does not teach or disclose the present invention as claimed in independent claim 1. Claims 2-4 and depend directly or indirectly from claim 1. Accordingly, Applicants submit that claims 2-4 are allowable by dependency. Thus, it is respectfully requested that the rejection of claims 1-4, under 35 USC §102 (e) be withdrawn.

Claim 21 is rejected under 35 USC §102 (e) as being unpatentable over Ermakov. Applicants respectfully traverse the rejection. Claim 21 is a method of cooling a superconducting magnet comprising the low eddy current cryogen circuit of claim 1. As discussed with reference to the 102(e) rejection above Ermakov does not teach or disclose each and every element of independent claim 21. Ermakov merely teaches a three coil apparatus for eddy current testing, which comprises coils, eddy-current induced by a magnetic field, a high conducting sampling surface and a cold sink. The Examiner has also cited that the coils are fabricated with ceramic (column 7, lines 10-13) as the basis for the rejection. For the same reasons as stated above, Applicants believe that independent claim 21 is in condition for allowance. Reconsideration and allowance of claim 21 on this basis is requested.

Claim 20 is rejected under 35 USC §103(a) as being unpatentable over Ermakove in view of Eckles (6,029,458). Claim 20 recites an MRI system comprising a superconducting magnet and the cryogen circuit of claim 1, wherein the cryogen circuit is adapted to cool the superconducting magnet. Eckles teaches a MRI system with cryogen cooling. However Ermakove fails to teach the cryogen circuit of claim 1. Therefore no combination of Ermakove in view of Eckles teaches the Applicants' claimed invention. Thus, it is respectfully requested that the rejection of claim 20 under 35 USC §103 (a) be withdrawn.

Claims 5-7, 10-20, and 22-36 were objected to as being dependent on a rejected base claim but would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 5-7 and 10-19 depend directly or indirectly from independent claim 1. Applicants believe that independent claim 1 is in condition for allowance. Reconsideration and allowance of claims 5-7 and 10-19 is respectfully requested.

Claims 22-26 depend directly or indirectly from independent claim 21. Applicants believe that independent claim 21 is in condition for allowance. Reconsideration and allowance of claims 22-26 is respectfully requested.

In view of the foregoing amendment and for the reasons set out above, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are respectfully requested.

Should the Examiner believe that anything further is needed to place the application in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number below.

Respectfully submitted,

/Eileen Gallagher/

Eileen B. Gallagher
Reg. No. 59,300

General Electric Company
Building K1, Room 3A68
Niskayuna, New York 12309

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Telephone:(518) 387-6383